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PROJECT NO. 52373

REVIEW OF WHOLESALE ELECTRIC MARKET DESIGN

§ PUBLIC UTILITY COMMISSION§ OF TEXAS

COMMENTS OF TEXAS ELECTRIC COOPERATIVES, INC.

Texas Electric Cooperatives, Inc. (TEC) respectfully submits these comments in response to the Public Utility Commission of Texas (Commission) Staff request for comment filed in Project No. 52373 on September 2, 2021. TEC is the statewide association of electric cooperatives operating in Texas, representing its members except as their interests may be separately represented.¹

While TEC interprets Staff's questions as generally not applicable to not-for-profit, member-owned electric cooperatives, TEC provides these limited comments to assist Staff and the Commission in their understanding of how cooperatives may fit into the residential demand response (DR) landscape in ERCOT. TEC's brief comments provide a general response to Question 1 of the Staff filing. As requested by Staff, TEC outlines an executive summary of its comments as follows:

- Many rural electric cooperatives have not seen significant expansion of residential DR because of the remote and low-density nature of their service areas and because of limitations on the infrastructure needed to facilitate these programs.
- Certain electric cooperatives have decided at the local level and where feasible to implement residential DR programs, some of which compensate members in the form of bill credits.
- Cooperative members must maintain autonomy to individually choose to override residential direct load control during an event.
- The majority of cooperative DR programs revolve around the four coincident peak (4CP) incentive present in ERCOT.
- A subset of cooperatives has implemented time-of-use (TOU) rates, and many others are evaluating implementing such programs.

¹ TEC's 75 members include distribution cooperatives that provide retail electric utility service to approximately 4,000,000 consumers in statutorily authorized service areas that encompass more than half of the total area of the state. TEC's G&T members generally acquire generation resources and power supply for their member distribution cooperatives and deliver electricity to them at wholesale.

- 1. Describe existing and potential mechanisms for residential demand response in the ERCOT market.
- a. Are consumers being compensated (in cash, credit, rebates, etc.) for their demand response efforts in any existing programs today, and if not, what kind of program would establish the most reliable and responsive residential demand response?
- b. Do existing market mechanisms (e.g., financial cost of procuring real time energy in periods of scarcity) provide adequate incentives for residential load serving entities to establish demand response programs? If not, what changes should the Commission consider?

One of the defining characteristics of electric distribution cooperatives in Texas and elsewhere is low customer density and the rural nature of cooperative service areas. On average, Texas cooperatives serve just over seven meters per mile, and fifteen of TEC's member systems serve three or fewer meters per mile of distribution line. As the Commission knows, electric cooperatives were founded in the 1930s by local farmers and ranchers to deliver essential electric service to these remote areas that were not served or were underserved.

TEC highlights the challenge faced by its members in terms of geographic scale and low customer density to illustrate that in many areas, a significant penetration of residential DR programs has not occurred, is not of sufficient scale to prompt a command-and-control posture by the system operator, and is likely not feasible in many remote parts of the state in the near term. The corresponding technology and connectivity needed to facilitate many forms of DR is not available in these areas, which have no or limited internet access and lack even cell coverage in some cases.

While many electric cooperatives are not currently offering DR programs because it is not feasible, TEC's member systems do closely follow developments in the evolving DR market. The Chair of the working group that handles these issues at ERCOT is a cooperative employee and member. Cooperatives continuously evaluate the potential to implement these programs to benefit their members and routinely poll their members' interest in DR and other emerging technology. Decisions regarding the implementation and expansion of residential DR programs are made at the local level by the Board of Directors of the cooperative, and several of TEC's member systems have implemented residential DR at the direction of their membership.² An electric cooperative's

² Certain non-opt-in entities (NOIEs), including electric cooperatives, participate in an annual ERCOT DR survey to supplement analysis conducted by ERCOT using NOIE boundary meter data. *See* ERCOT 2020 Annual Report of Demand Response in the ERCOT Region (Dec. 2020).

Board of Directors has jurisdiction over whether and how to deploy DR programs in the cooperative's service territory.³

The most common form of residential DR deployed, which generally occurs in more dense, suburban service areas with sufficient broadband coverage, are programs wherein the cooperative partners with a smart thermostat provider and offers its members bill credit incentives to allow limited direct load control during peak periods.⁴ Smart thermostat programs are common because thermostat providers offer user-friendly platforms that allow customers to interact with the device over the internet. Where these programs are offered, cooperative members may choose to participate and receive bill credits, but members always have the ability to override any form of direct load control initiated by the cooperative during an event. TEC's member systems prioritize their members' ultimate right to control their own thermostat, and TEC would oppose any intrusion into how residential members manage their energy consumption. TEC highlights this autonomy because it may conflict with a command-and-control stance by the system operator with regard to residential cooperative DR.

In addition to smart thermostat programs, cooperatives also offer conservation-oriented programs that do not allow for direct load control, but focus on messaging or alerting cooperative members, asking them for voluntary conservation during times of high system demand.⁵ These appeals are generally aligned with ERCOT conservation appeals.

TEC understands that many cooperative DR programs are designed to reduce the amount of energy the distribution cooperative must purchase from its power supplier, thus reducing customer costs. Further, many of these programs are focused on reducing the cooperative's demand during 4CP intervals, thereby reducing transmission costs allocated to cooperative members in the following year. The incentives created by the 4CP cost allocation methodology may be the dominant driver of DR programs in cooperative service areas. Although 4CP cost

³ See Public Utility Regulatory Act § 41.055(5), (6) & (11).

⁴ See e.g., CoServ's Rush Hour Rewards program, available at: https://support.coserv.com/hc/enus/articles/360005899234-Rush-Hour-Rewards; Guadalupe Valley Electric Cooperative's Peak Time Payback program, available at: https://www.gvec.org/electric/peak-time-payback/; Magic Valley Electric Cooperative's MyResponse program, available at: https://magicvalley.coop/myresponse-program/; United Cooperative's Thermostat program, available at: https://www.ucs.net/thermostat-program; MidSouth Electric Cooperative's Thermostat Savings program, available at: https://midsouthelectric.com/midsouthrewards/.

⁵ See e.g., United Cooperative Services' Beat the Peak program, available at: https://www.ucs.net/beat-peak-sign;; Pedernales Electric Cooperative's Power Rush Hour program, available at: https://www.pec.coop/savings/power-rush-hour/.

allocation is not a pure market mechanism, it does have the effect of reducing load during peak

periods. While cooperative DR programs designed around 4CP represent a small fraction of

system-wide 4CP response, cooperatives have made relatively significant investments to enable

their members to respond to 4CP.

Other demand-side conservation programs typically deployed by cooperatives include

energy audits and energy efficiency rebates, and a subset of cooperatives have implemented

changes to their tariffs enabling a TOU rate structure for residential and non-residential consumers.

These rates are designed to reduce consumption during peak periods and encourage consumption

during times of surplus capacity, providing members direct cost savings. For those cooperatives

with TOU rates, TEC understands they have been well-received by their member-owners. Many

cooperatives are evaluating a variety of TOU programs at the request of their memberships, and

TEC expects increased adoption of TOU rates over time.

Generally speaking, and given the limitations faced by many electric cooperatives, it

appears there are adequate mechanisms to support residential DR in cooperative service areas,

where such programs are feasible. As technology improves and certain areas become more densely

populated, TEC believes cooperative members in these areas will increasingly direct their Boards

to adopt these programs.

Dated: September 9, 2021

Respectfully submitted,

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